

Claims

1. Bipolar transistor, with
an emitter area (3) which can be contacted electrically via
5 an emitter electrode (1);
a base area (4) which can be contacted electrically via a
base electrode (2);
a collector area (5) which can be contacted electrically
via a collector electrode;
10 characterized in that
at least one electrode of the emitter, base and collector
electrodes (1, 2) is a polysilicon layer, into which
impurity atoms, which cause a high density of vacancies in
the polysilicon layer, are inserted.
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2. Bipolar transistor according to Claim 1,
characterized in that
the impurity atoms are C, P or Ar atoms.
- 20 3. Bipolar transistor according to Claim 1 or 2,
characterized in that
the density of the impurity atoms in the polysilicon layer
is in the range of about $10^{19} - 10^{21} \text{ cm}^{-3}$.
- 25 4. Bipolar transistor according to one of the preceding
claims,
characterized in that
the polysilicon layer is doped with boron atoms.
- 30 5. Bipolar transistor according to Claim 4,
characterized in that
the concentration of the boron atoms is chosen to be
greater than $5 \times 10^{20} \text{ cm}^{-3}$.

6. Bipolar transistor according to one of the preceding claims,

characterized in that

5 the at least one electrode (1, 2) consists of polycrystalline silicon-germanium.

7. Bipolar transistor according to one of the preceding claims,

10 characterized in that

the at least one electrode is the base electrode (2).

8. Bipolar transistor according to one of the preceding claims,

15 characterized in that

the bipolar transistor is a self-aligned bipolar transistor.